ATW-B80
UHF In-Line Amplifier

Installation and Operation

CE

CAUTION

For personal safety and reliable system operation:

1. Use with Audio-Technica UHF receiver models AEW-R5200, AEW-R4100, ATW-R2100 or with the AEW-DA series antenna distribution systems. Otherwise the ATW-B80 will not receive appropriate power for operation.
2. Keep operational environment temperature within –20 to + 60 degrees Celsius. Please note that prolonged exposure to direct sunshine, or temperatures above 40 degree Celsius may cause the finish to discolor.
3. Do not open and/or modify the device.
4. Do not expose this device to water or other liquids.
5. Avoid placing on top of a power amplifier or lighting system.
6. Avoid using product in high humidity or dusty environments.
7. Avoid using paint thinner, benzene alcohol or other chemicals for cleaning the unit; instead, use a dry soft linen cloth.

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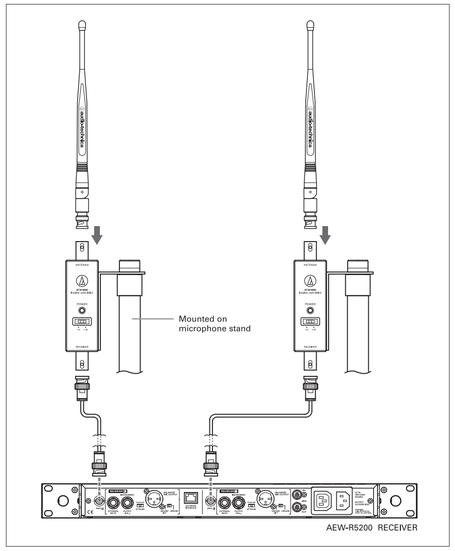
INTRODUCTION

The Audio-Technica ATW-B80 in-line amplifier provides increased gain for receiving antennas, such as the half wave antennas supplied with AEW series receivers and the ATW-A49 LPDA antenna (See EXAMPLE). It compensates for antenna cable loss, thereby extending the operating range and reliability of UHF wireless systems.



NOTABLE FEATURES

Compact and lightweight:

The ATW-B80 may be installed in small spaces such as inside cable pipelines.
Size: 25mm x 25mm x 100mm
Weight: 87grams

Two-position 10dB or 3dB gain select switch:

Provides appropriate RF signal boost depending on length of cable used.

Bus power:

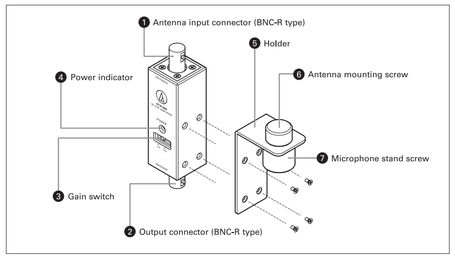
The ATW-B80 obtains power from AEW-5200/R4100, ATW-2100 (excluding US version) receivers or from the ATW-DA antenna distribution systems through its coaxial cable when the antenna power is on.

Cable type and length

Use low loss coaxial cable speced at 50 ohms impedance.

		482-507 MHz	541-566 MHz	655-681 MHz	721-746 MHz	740-752 MHz	773-798 MHz	795-820 MHz	840-865 MHz
-3dB	RG58	9.3m	8.6m	7.7m	7.2m	6.9m	6.9m	6.8m	6.5m
	RG8	16.8m	15.2m	13.3m	12.5m	12.1m	11.9m	11.7m	10.9m
-10dB	RG58	31.0m	28.5m	25.6m	23.9m	23.1m	22.9m	22.7m	21.8m
	RG8	55.9m	50.6m	44.5m	41.7m	40.4m	39.6m	38.9m	36.4m

CONTROLS AND FUNCTIONS



1 Antenna input connector (BNC-R type)

Mount half wave antenna directly or use short BNC to BNC cable to connect to the ATW-A49 antenna.

2 Output connector (BNC-R type)

Using low loss high quality coaxial antenna cable, connect the ATW-B80 to a UHF diversity receiver or antenna distribution system antenna input. Bus power is supplied from these units through the antenna cable.

3 Gain switch

Select either +10dB or +3 dB of system gain setting. The normal setting is +10dB. However if the cable length is short or if the ATW-B80 is very near to the wireless transmitters, set the gain to +3dB. Use a ball point pen (or similar) to operate the switch.

4 Power indicator

The Power indicator light indicates that bus power is applied and the ATW-B80 is ON. If it is not illuminated, check to be certain that the antenna power of the Antenna Distribution system or UHF Receiver is turned on. Please note that the ATW-R2100 operating in the "D" band (668 MHz band) does not provide antenna power.

5 Holder

When mounting the ATW-B80 on a microphone stand, use the provided screws to mount the holder to the ATW-B80 (see above).

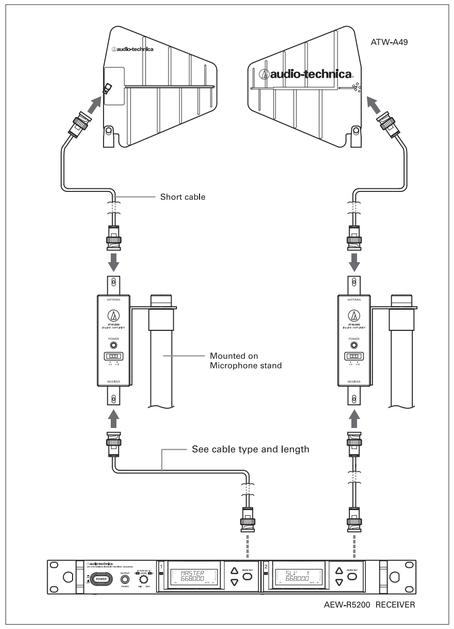
6 Antenna mounting screw

Mount the ATW-B80 on the ATW-A49 LPDA antenna here (see above).

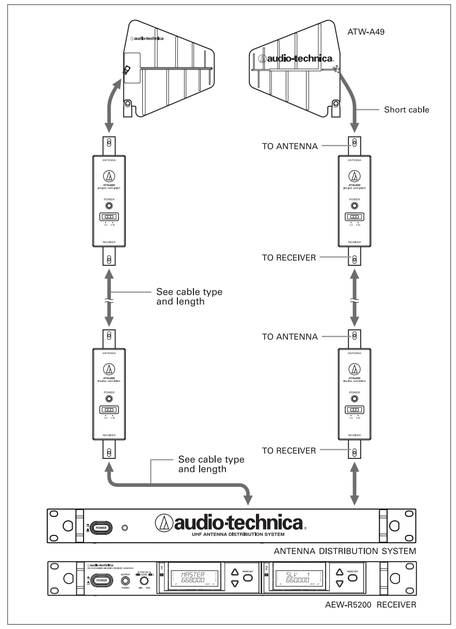
7 Microphone stand screw

Use this for mounting to a microphone stand (see above).

EXAMPLE



USING MORE THAN ONE ATW-B80



SPECIFICATIONS

RF Frequency Range	ATW-B80 I : 482-507MHz ATW-B80 C : 541-566MHz ATW-B80 D : 655-681MHz ATW-B80 G : 721-746MHz ATW-B80 KR : 740-752MHz ATW-B80 H : 773-798MHz ATW-B80 E : 795-820MHz ATW-B80 F : 840-865MHz
Signal Gain:	3dB position: 3dB typical 10dB position: 10dB typical
Input / Output Connector:	BNC-R
VSWR (voltage standing wave ratio) at 10dB gain setup:	Input: 3 or less Output: 3 or less
NF (Noise figures) at 10dB gains setup:	6dB typical
Power Supply Voltage:	12V (Bus powered)
Power Consumption:	20mA or less
Operating Temperature Range:	-20 to 60 degree Celsius
Size:	25mm x 25mm x 100mm
Weight:	87grams (excluding holder)
Case:	Black Anodized Aluminum
Mounting Screw Size:	Antenna mounting screw: 1/4 inch Microphone stand screw: 1/4 inch
Furnished accessories:	Microphone stand holder x2 Instruction manual
Standard:	EN55013/EN5520

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